

WHAT IS CLAIMED IS:

1. An information recording method of recording data on a recording medium, comprising the steps of:

recording, in the recording medium, information in a space bit map format representing recorded and unrecorded areas assigned according to each recording unit of the areas on the recording medium; and

recording, when information corresponding to a position of recorded and unrecorded areas is updated, the information in a space bit map format again on the recording medium at predetermined timing.

2. A recording apparatus for recording data in a recording medium, comprising:

a pickup;

a signal processing circuit for executing signal processing to record data in the recording medium; and

an interface for conducting data input and output operations, wherein

the pickup reads, from the recording medium, information in a space bit map format representing recorded and unrecorded areas assigned according to each recording unit of the areas in the recording medium and then stores the information corresponding to a position of recorded and unrecorded areas in a nonvolatile memory.

3. A recording apparatus according to claim 2,

wherein:

when the information in the space bit map format is updated, an update flag indicating an event of update of the information is set in the nonvolatile memory;

information corresponding to a position of recorded and unrecorded areas is recorded in the recording medium at predetermined timing; and

the update flag is reset when the information is completely recorded.

4. A recording apparatus for recording data in a recording medium, comprising:

a pickup;

a signal processing circuit for executing signal processing to record data in the recording medium; and

an interface for conducting data input and output operations, wherein:

the pickup reads, from the recording medium, information in a space bit map format representing recorded and unrecorded areas assigned according to each recording unit of the areas in the recording medium; and

when the information in the space bit map format is updated, an error data is caused at a particular position indicating an event of update of the information and is stored in the recording medium.

5. A recording apparatus according to claim 4,

wherein the error data is caused at a particular position of the information in a space bit map format corresponding to a position of the recording and unrecorded areas of a second last generation in the recording medium.

6. An information recording method of recording data in a recording medium, comprising the steps of:

recording, in the recording medium, information to control recorded and unrecorded areas in areas in the recording medium;

recording, when the information representing recorded and unrecorded areas is updated, the information in the recording medium at predetermined timing; and

recording one of flags indicating respective types of the timing of the update in the recording medium.

7. A recording method according to claim 6, wherein:

each of the flags indicating respective types of the timing of the update is associated with a group of several points of timing; and

one of the flags is recorded in the recording medium, the flag thus recorded corresponding to a point of timing of the update.

8. A recording method according to claim 7, wherein:

the flags indicating respective types of the

timing of the update are assigned at least to timing of an audiovisual device and timing of personal computer; and

one of the flags is recorded in the recording medium, the flag thus recorded corresponding to a point of timing of the update.

9. A recording apparatus for recording data on a recording medium, comprising:

a pickup;

a signal processing circuit for executing signal processing to record data in the recording medium; and

an interface for conducting data input and output operations, wherein:

the information representing recorded and unrecorded areas in areas in the recording medium is recorded in the recording medium;

when the information to control recorded and unrecorded areas is updated, the information is recorded on the recording medium at predetermined timing; and

one of flags indicating respective types of the timing of the update is recorded in the recording medium.

10. A recording apparatus according to claim 9, wherein:

each of the flags indicating respective types of the timing of the update is associated with a group

of several points of timing; and

one of the flags is recorded in the recording medium, the flag thus recorded corresponding to a point of timing of the update.

11. A recording apparatus according to claim 10, wherein:

the flags indicating respective types of the timing of the update are assigned at least to timing of an audiovisual device and timing of personal computer; and

one of the flags is recorded in the recording medium, the flag thus recorded corresponding to a point of timing of the update.

12. A recording medium on which information to control recorded or unrecorded areas in recording areas is recorded, wherein:

when the information representing recorded and unrecorded areas is updated, the information is recorded in the recording medium at predetermined timing; and

one of flags indicating respective types of the timing of the update is recorded in the recording medium.

13. A recording medium according to claim 12, wherein:

each of the flags indicating respective types of the timing of the update is associated with a group of several points of timing; and

one of the flags is recorded in the recording medium, the flag thus recorded corresponding to a point of timing of the update.

14. A recording medium according to claim 13, wherein:

the flags indicating respective types of the timing of the update are assigned at least to timing of an audiovisual device and timing of personal computer; and

one of the flags is recorded in the recording medium, the flag thus recorded corresponding to a point of timing of the update.